Deltek Costpoint® 7.1.1

Message Boards

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Overview

The Web technology foundation of Costpoint 7 enables every member in the business process to access business data like never before, using broad a spectrum of devices like desktops, laptops, tablets, and smartphones. High availability improves access to business information, but in order to make quality and quick decisions, communication and collaboration between business participants becomes the most critical. To capture these requirements and provide additional value to Deltek customers, Costpoint 7 introduces a new functionality called Message Boards (MB).

Message Boards enable collaboration between Costpoint users through the email message exchange. Email discussions can include users who are away from Costpoint or away from a computer. Wide adoption of smartphone technology enables practically anyone with a smartphone to receive email and participate in discussions about business data, thus shortening the decision making process.

Message Boards seamlessly integrate into the Costpoint framework, and do not require installation of any additional components. The Costpoint administrator can decide to turn any application data set into discussion topic. After the topics are defined, users can participate in the message exchange through Costpoint screens, Outlook, other email clients, or smartphone email applications. All discussions are permanently stored on the Exchange Server and can be later used as a valuable insight into the history of decision making process.

Inside Costpoint, topic discussions are tied to particular business entities represented by data records (like vouchers or employee records). Discussions about entities can be available in multiple application screens wherever entities are referenced.

Message Boards messages about Costpoint data are not public. They can use the same security restrictions that are defined for Costpoint screens, or the administrator can configure a custom security structure for each topic. Security restrictions valid for Costpoint are also applied to Outlook and other email clients, making discussions about restricted data visible only to authorized users.

Message Boards are implemented by integrating Costpoint with Microsoft Exchange Server. In the following text, Outlook and Exchange Server are synonyms. Basically everything about Message Boards is defined on the Exchange Server. Outlook is a client application that brings a view into Exchange Server objects to users. There is also the Outlook Web Application (OWA) thin Web client that can be used the same way as Outlook.

This guide describes how to configure, tune, and use Costpoint Message Boards.

Message Boards Terminology

This document uses the following terms and abbreviations common to CMI applications.

Term	Definition
Message Board (MB)	Message storage location (implemented as Exchange Public folder) where email messages (discussions) are stored. A MB is visible and accessible in Outlook and Costpoint, and authorized users can post messages to collaborate on specific Costpoint topics.
Exchange	Microsoft Exchange Server — supported versions are 2010 SP1 and newer
Outlook	Microsoft Office Outlook
Outlook Web Application (OWA)	A thin Web email client application similar to Outlook
Exchange Public Folder (or Outlook Public Folder)	Exchange folder visible and accessible in Costpoint, Outlook, or OWA by multiple users based on permission access rights
Mail Enabled Public Folder	Public folder that has an unique email address and can receive email messages
Public Folder Permissions	View, read, write, and delete rights can be set up for the user. Only users who have a valid Exchange mailbox can have access to public folders outside of Costpoint.
Exchange Web Services (EWS)	API used to integrate with the Exchange Server
Costpoint to Exchange PowerShell Bridge	Windows service installed on the Costpoint application server used to integrate with the Exchange PowerShell remote interface

Functional Overview

Once enabled and configured, Message Boards bring the following features and functionalities to Costpoint applications:

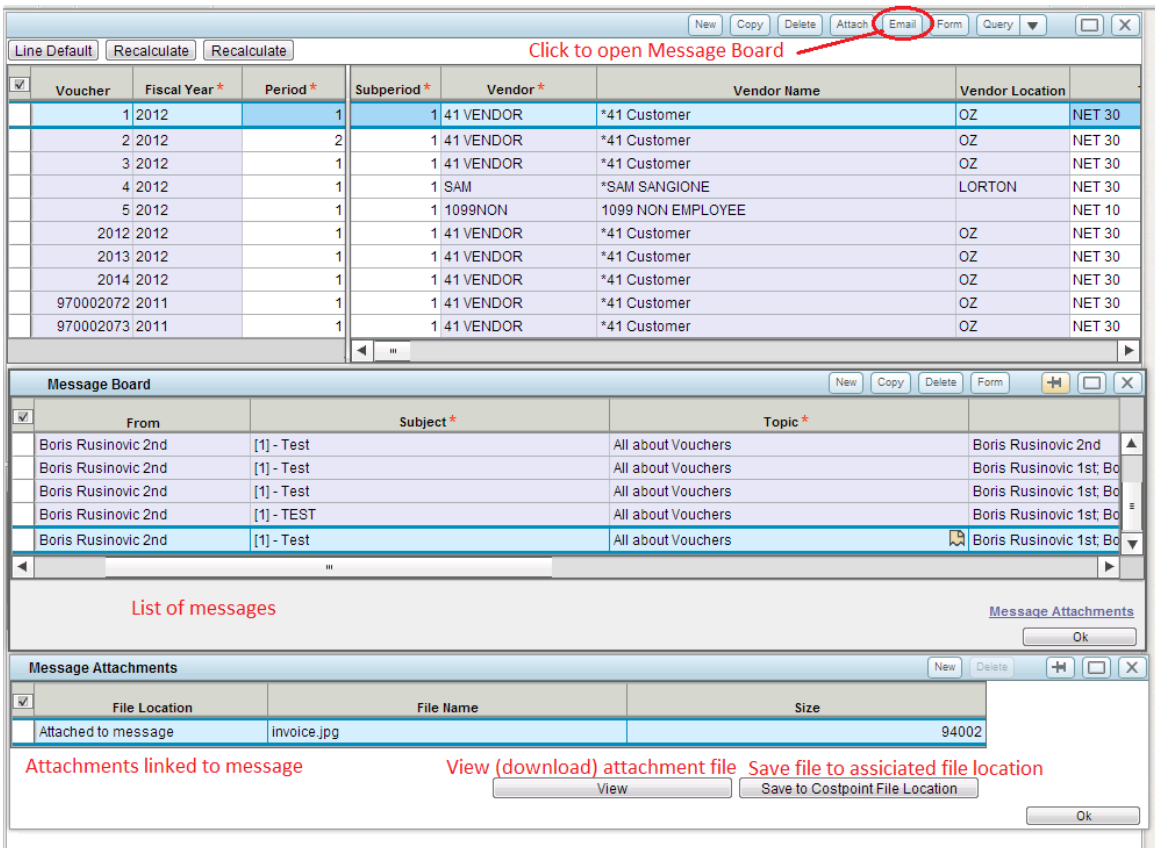
- For a record in Costpoint, you can open a message board screen that displays all existing messages about a particular record.
- You can post a new message to MBs, and send it to other recipients at the same time.
- For the new message, the subject line is prefixed with the key data about the current record. Key fields are configurable. This is how Costpoint filters data, and this is how specific messages can be searched and filtered in Outlook.
- New message body can include automatically populated data about the current record. Fields to include are configurable.
- New messages include the URL that points to Costpoint, screen, and record that the message is about.
- Message can be defined as an approval request. An approval request message includes configurable approval instructions and an additional URL to Costpoint approval screen.
- Costpoint MBs are visible and accessible in Outlook as Public folders.
- Users can subscribe to messages to receive them directly by email (into their own email Inbox).
- Replying to a subscribed message sends a new message to the Message Board. Reply All ensures that all subscribers and direct recipients receive a reply
- Messages about item (for example, voucher X) can be visible on any Costpoint screen where the item is accessed.

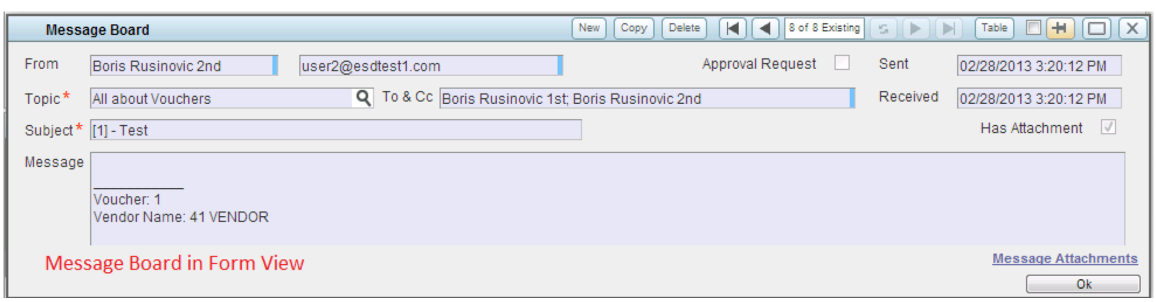
Using the Message Board

When a MB is configured for a particular Costpoint application screen, the **Email** button on the toolbar becomes visible and enabled. Click this button to display the Message Board system subtask. This table displays a list of MB messages associated with the current Costpoint transaction record.

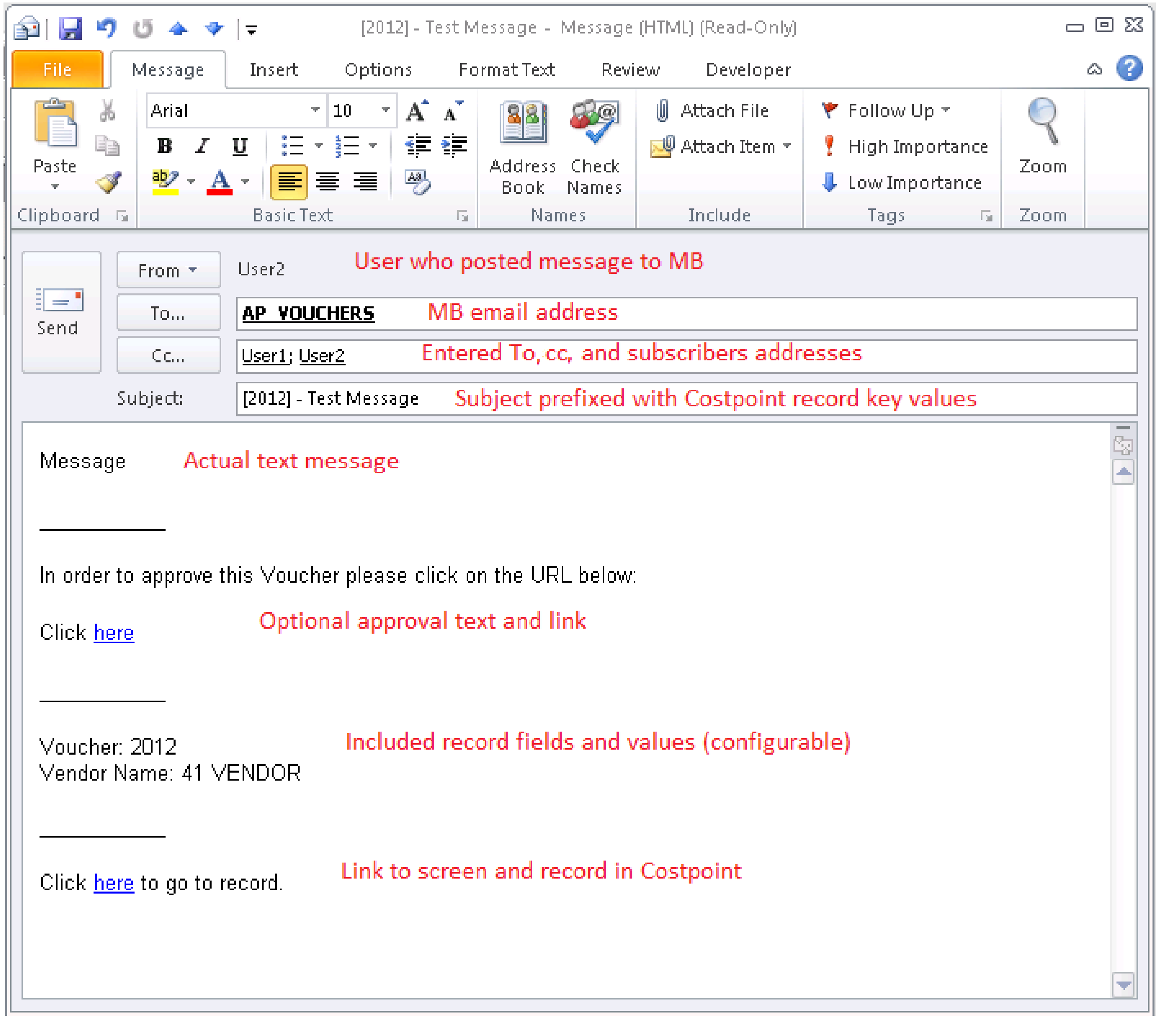
You can create a new message by entering a new record into the **Message Board** table. Click the **Message Attachments** link to display a subtask with file attachments.

All of these features are discussed in detail in this document.





The same message is visible in the Outlook public folder, or in a user's Inbox (if the user's address is in the **To** or **Cc** field, or the user subscribes to the MB).



When a message is saved in Costpoint, additional information is automatically added to the message:

- **To** field contains a unique MB email address. Any reply to the message sends a message back to the MB.
- Addresses entered into the **To** and **Cc** fields appear in the Outlook message **Cc** field. All subscribers' addresses also appear in the **Cc** field. This is to ensure that a **Reply All** message from the outside reaches all parties interested in the message
- **Subject** is prefixed with the key data in square brackets. This is to ensure the link of the message to a particular business entity (data record). Costpoint uses this information to filter data and display only messages associated with a particular record. Also, in Outlook, you can search and filter messages by subject (for example, find only messages for voucher #2012).

- Message body contains actual message text and additional information that is automatically populated by Costpoint:
  - Optional approval text and link
  - Configurable information about current record. The administrator can configure record fields that will be included with every message in order to describe the current record in more detail. This information can be important for users who receive the message, but don’t have access to Costpoint.
- Link to the data record that message is about.

Costpoint Exchange Server Connector

Costpoint integration with Microsoft Exchange Server is done using the Exchange Web Services (EWS) API. EWS is a standard programming interface that enables third-party applications (like Costpoint) to interact with Exchange. Unfortunately, not all functions required for Costpoint integration are available in the EWS API. For the missing operations, Costpoint uses a special interface called the Costpoint Exchange Server Connector that connects directly with the Exchange Server.

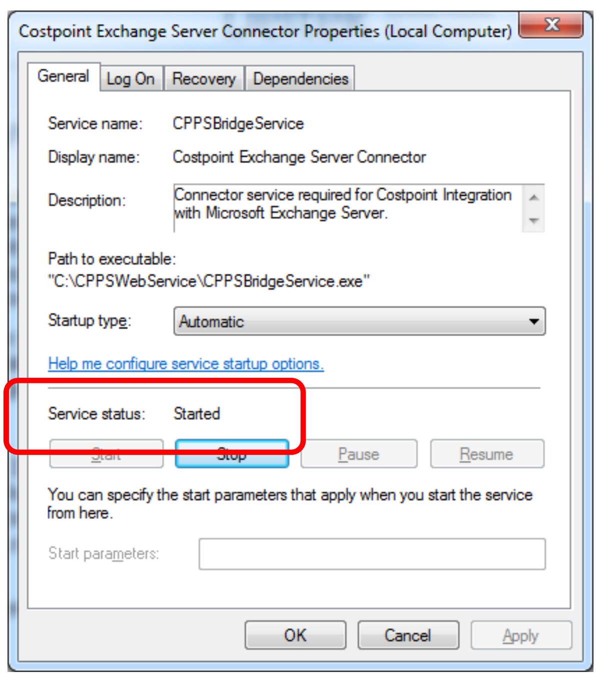
The connector runs as a Windows service on the Costpoint Application Server and acts as a bridge between Costpoint and Exchange. Installation of this Windows service is a prerequisite for Costpoint integration with Exchange and Message Boards functionality.

To install the Costpoint Exchange Server Connector, complete the following steps:

1. Start the installation wizard by running DeltekCostpointExchangeServerConnector.exe.
2. Accept the license agreement, all default settings, and the location for the service files.
3. After the installation completes, restart the computer when prompted.

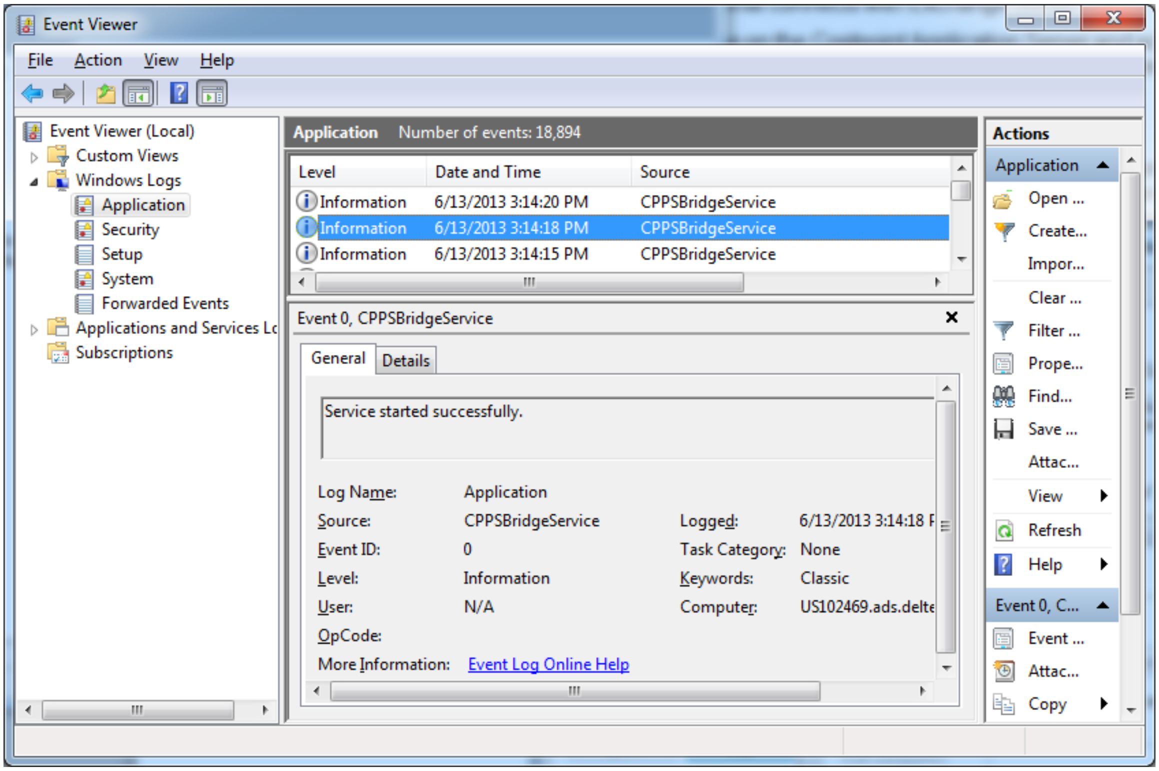
   This is necessary to successfully restart the service. Alternatively, you can open the service Properties and start it manually.

You can verify that the service started by opening the services screen, finding the service, and looking at its **Service status**.



This installation must be performed on every application server in the cluster.

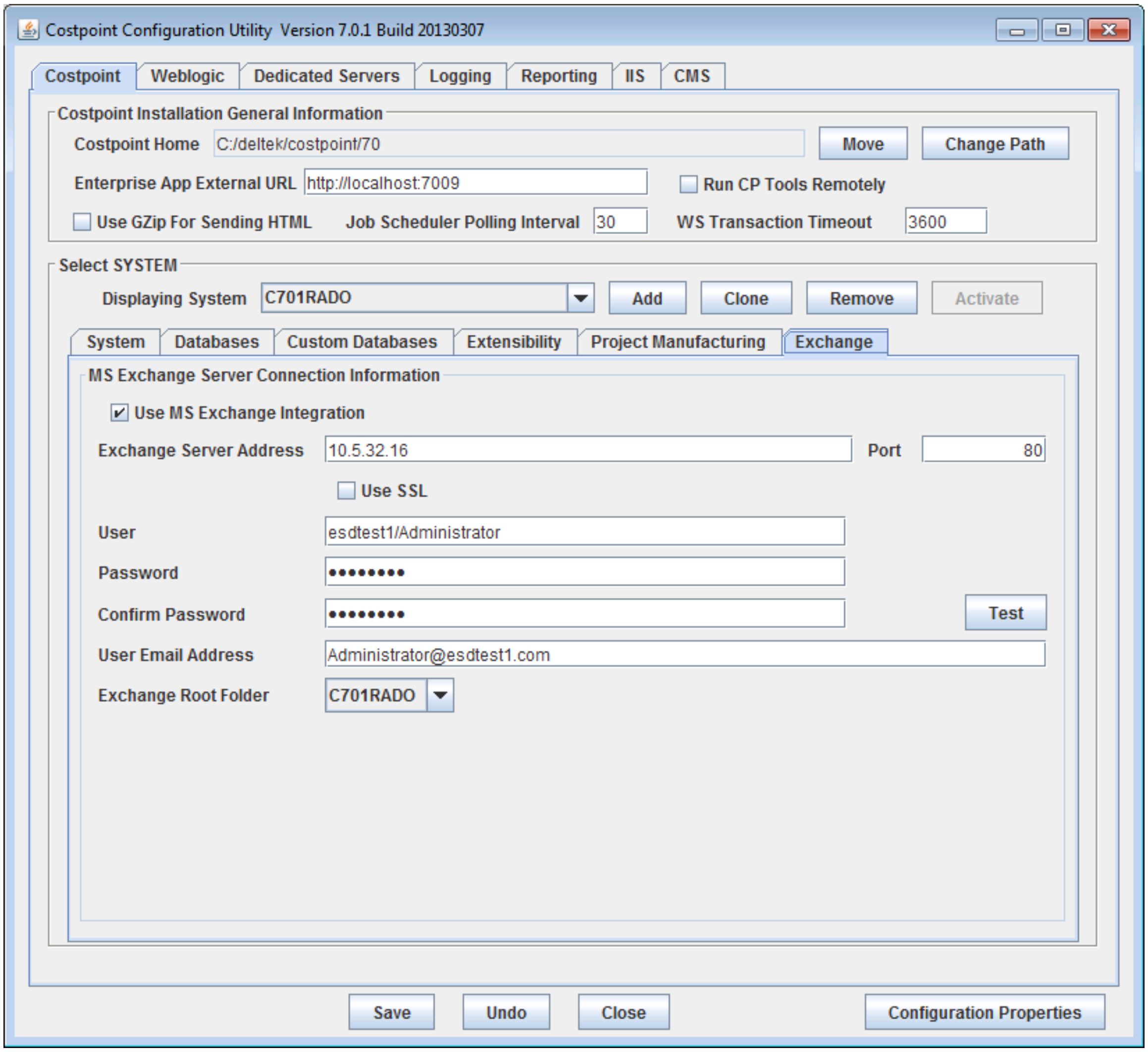
All service troubleshooting information (such as state changes, opening and closing sessions with Exchange, errors, and so on) are saved to the Windows system Application event log.



Costpoint Configuration Utility: Connecting to the Exchange Server

The Costpoint Configuration Utility lets you perform all Costpoint configuration tasks, including setting up the connection to the Microsoft Exchange Server. Costpoint Exchange Server integration is defined separately for every Costpoint system.

For more information about the Configuration Utility, see the *Deltek Costpoint Configuration Utility* guide.



To configure connection to Exchange Server, complete the following steps:

1. Launch the Costpoint Configuration Utility.
2. For the selected system (existing or newly created), click the Exchange tab.
3. Select the **Use MS Exchange Integration** checkbox
4. Enter data in the following fields:

- **Exchange Server Address** — Enter the server name or IP address.
- **Port** — Enter the port number for Exchange Web Services (EWS), usually 80
- **Use SSL** — Select this check box if the EWS connection point requires SSL
- **User** — Enter the username in the format domainname/username. This is a super user account that has administrative privileges for Exchange Server
- **Password** and **Confirm Password** — Enter the user’s password, and then re-enter it to confirm.
- **User Email Address** — Enter the user email address as it is defined in Exchange.
- **Exchange Root Folder** — Select the name for the Costpoint Message Board root folder in Exchange. This folder is created in the root of the Outlook Public Folders. For single system Costpoint deployments, it is convenient to use a folder named Costpoint. For multi-system Costpoint deployments, it is important to have a separate root folder for each system and a root folder with the same name as system is recommended.

This is information about Exchange Web Server EWS connectivity, not SMTP. EWS is the MS Exchange integration API that Costpoint uses. The EWS port is usually 80, not 25 which SMTP uses.

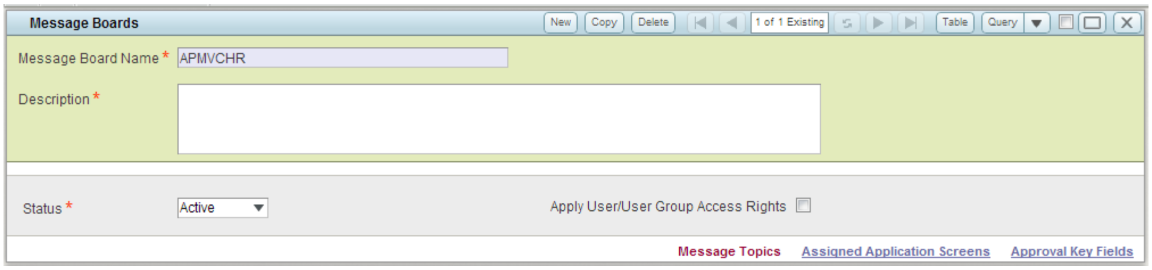
5. Click **Test** to validate the connection entries and attempt a connection to Exchange. If the connection succeeds, the following message displays.

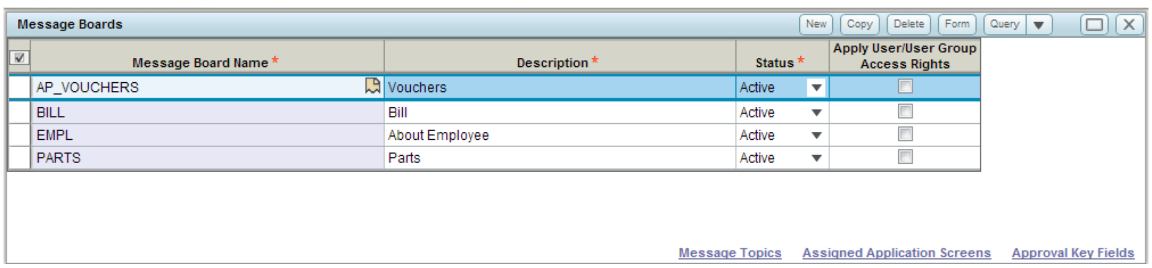
Enter/Manage Message Boards

Use the Manage Message Boards (SYMBOARD) application in Costpoint to launch the application where you define Costpoint message boards and MB topics, and map them to Costpoint application screens.

Message Boards

Uses the Message Boards screen to define MBs. Message boards are abstract Costpoint defined entities. This screen does not indicate where messages are stored. By saving this screen, MBs exist, but are not used as yet. In order to be used, a MB must be assigned to an Application/Result Set, fields must be defined, and the MB must be associated with topics that map to public folders in Outlook.





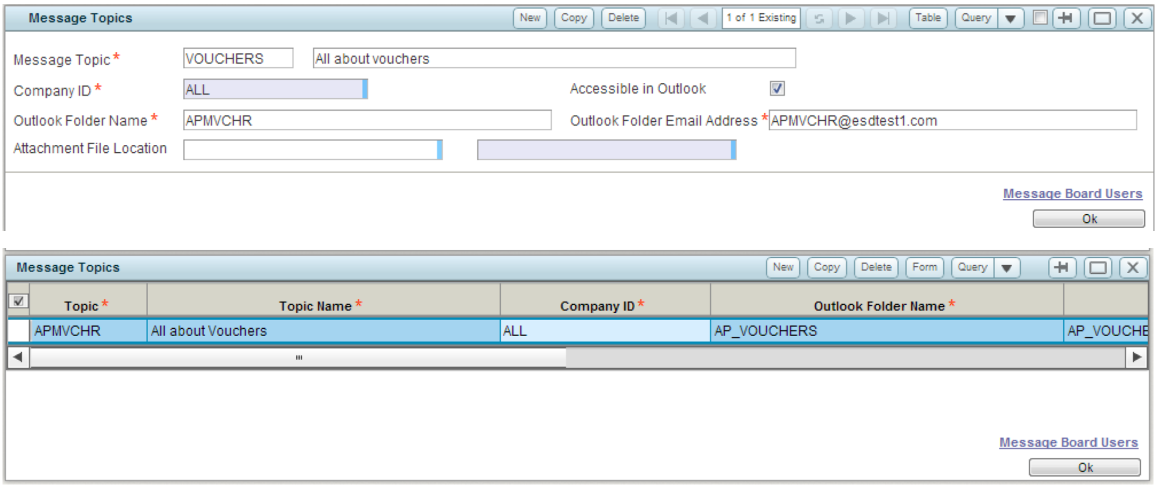
To set up a Costpoint message board, complete the following steps:

1. From Costpoint, click **Administration » System Administration » User Collaboration » Manage Message Boards**.
2. On the Message Boards screen, enter the following:
   - **Message Board Name** — Enter a unique name for the message board.
   - **Description** — Enter a descriptive name for the message board.
   - **Status** — Choose one of the options:
     - **Active** — MB is fully functional.
     - **Inactive** — MB is defined, but cannot be seen or used.
     - **Read Only** — MB is visible, but cannot accept new entries.

     You can set the status to **Inactive** while the MB is still being configured. After completing the configuration, setting the status to **Active** enables the MB for configured applications.
   - **Apply User/User Group rights** — Select this check box if you want to assign custom access rights to MB topics. Clearing the check box indicates that standard user app/module rights are valid for all MB topics.

Message Topics

This screen defines discussion topics.



Usually there is only one topic for the each message board, but there are situations when multiple topics are required for the following reasons:

- Costpoint is configured for multiple companies, and you need data and messages in Costpoint and Outlook to be separate for each individual company.
- Row-level security restrictions permit access to the data and topic only for a selected group of users. For that situation, you will define multiple topics with different security settings (custom access rights).

To set up the new topic, complete the following steps:

1. From Costpoint, click **Administration » System Administration » User Collaboration » Manage Message Boards**.
2. On the Message Boards screen, click the **Message Topics** subtask link.
3. On the Message Topics screen, enter the following:
    - **Topic** — Enter a unique ID (name) for the topic. In 99% of cases, this could be the same name as the message board.
    - **Topic Name** — Enter a descriptive name for the topic. This is the name that will be used to identify the topic.
    - **Company ID** — Enter **ALL** or the company ID with which to associate it.
    - **Accessible in Outlook** — Selected by default. If cleared, users won't be able to see or use the topic folder in Outlook.
    - **Outlook Folder Name** — Enter the actual Outlook folder name. This could be the same name as the topic ID and/or the message board name. The system will validate the existence of the folder name and create a new folder if necessary. If the **Company ID** is **ALL**, the system will create a folder within the root folder. If the topic/folder is set for the specified company, the folder will be created inside company folder (for example, root\companyId\folderName).
    - **Outlook Folder Email Address** — Enter the unique email address for the folder.

- **Costpoint Attachment File Location ID** — You can predefine an alternate file location for the topic. This location will automatically serve as the destination for importing email attachments into Costpoint. Any predefined file location can be used in this place.
- **Costpoint Attachment File Location Name** — Enter the name of the selected alternate file location.

There is a one-to-one relationship between topics and Outlook folders. When entering a new folder, the system will validate its existence in Outlook. If the folder is already defined for another topic, Costpoint will not permit the save. Otherwise, it will create the new folder in Outlook and assign its access permissions based on Costpoint settings.

If you enter a folder email address that is already defined in Exchange, the system will assign a similar address (for example, you enter voucher@domain.com that already exists, the system will change it to voucher_1@domain.com).

Outlook folder and email addresses are required information regardless of the **Accessible in Outlook** setting. The folder must exist on the Exchange Server, and the flag only defines it's visibility in Costpoint and Outlook.

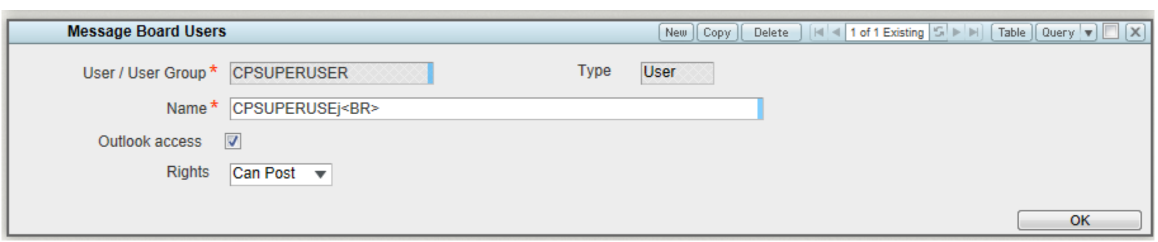
Message Board Users/User Groups

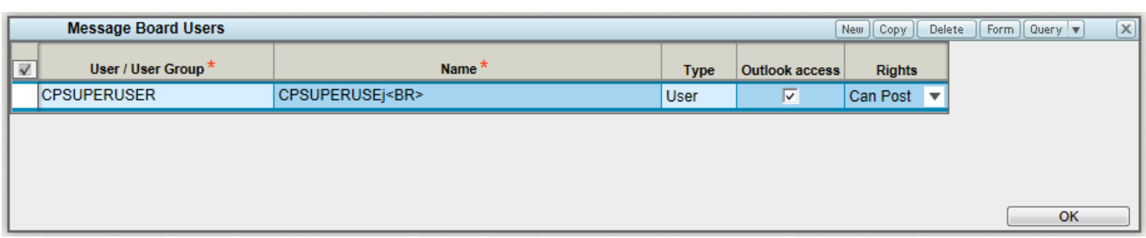
If you select the **Apply User/User Group Rights** check box on the main Message Board screen, you can fine tune the access rights for each topic/folder. This way some topics/folders will be visible and editable only by specific users or groups while other topics/folders can be hidden or read-only.

If you clear the check box, the default user/user group rights for a particular application will be applied to all MB topics/folders.

It is important to note that these access rights are not just access rights for Costpoint, but also access rights for Outlook or Outlook Web Access.

Whenever access rights are changed and saved, new security settings are transferred to Exchange and the folder security permissions are updated.





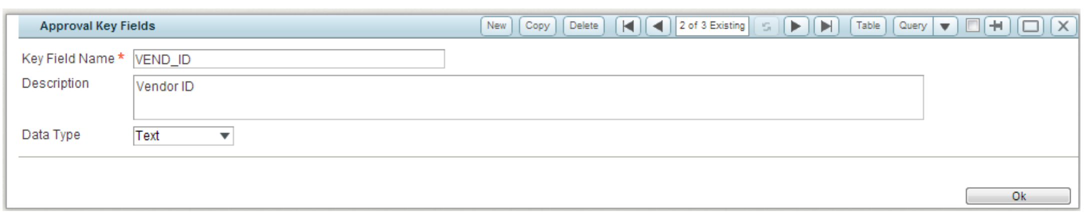
To set up the new user/user group rights, complete the following steps:

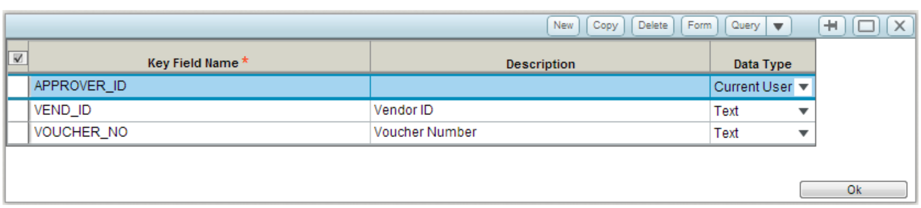
1. From Costpoint, click **Administration » System Administration » User Collaboration » Manage Message Boards**.
2. On the Message Boards screen, click the **Message Topics** subtask link.
3. On the Message Topics screen, click the **Message Board Users** subtask link.
4. On the Message Board Users screen, enter the following:
   - **User / User Group** — Enter the ID for the user or user group that the rights apply to.
   - **Type** — Displays **User** or **Group** (automatically populated field).
   - **Name** – Displays the name of the user or group (automatically populated field).
   - **Outlook Access** — Select this check to indicate that the user/group has rights to view and access messages in Outlook.
   - **Rights** — Select the rights for this user/group: **None**, **Can Read**, or **Can Post**

Approval Key Fields

You use this optional screen to define the business keys needed for an approval use case scenario. When a user creates a new message, they have an option to mark it as an approval request. An approval request message contains a URL to the approval screen. The approval key fields are required for the generation of approval URLs.

For more information on how to use approval fields, refer to the "Message Board Data Fields" section.





To enter a new approval field, complete the following steps:

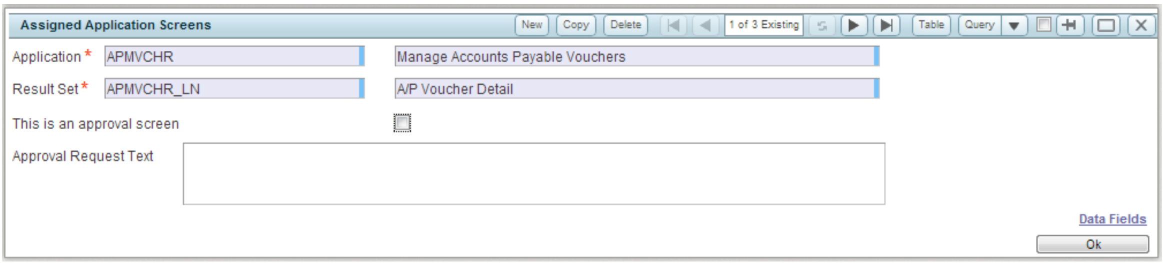
1. From Costpoint, click **Administration » System Administration » User Collaboration » Manage Message Boards**.
2. On the Message Boards screen, click the **Approval Key Fields** subtask link.
3. On the Approval key Fields screen, enter the following:
   - **Key Field Name** — Enter the name of the approval field.
   - **Description** — Optional. Enter the description for the field.
   - **Data Type** — Select the data type for the field: **Text**, **Number**, **Date**, or **Current User**.

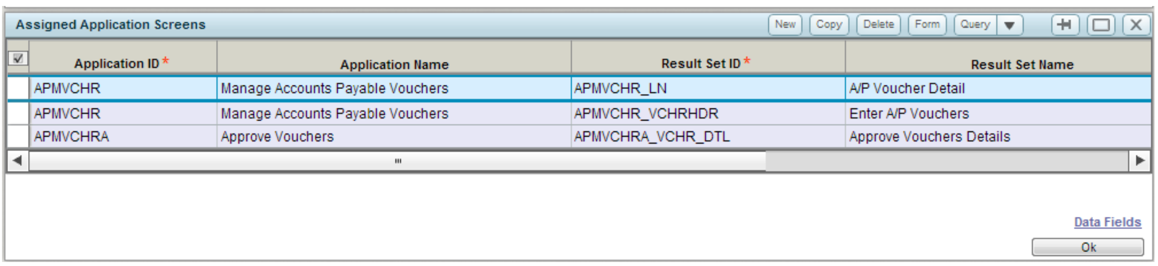
Assigned Application Screens

You use this screen is to assign a MB to the application and result set. A new record in this table defines that the message board is active for the given application/result set (application screen). When the MB is active, the application result set toolbar displays the **Email** button. Clicking this button opens the message board for the particular application screen record.

The association to application screen is not complete before fields are entered for the result set. The field definition associates a MB to a particular record and is configured in the Message Board Data Fields screen. The Assigned Application Screens screen cannot be saved without complete field definitions.

You can assign a message board to multiple application screens.





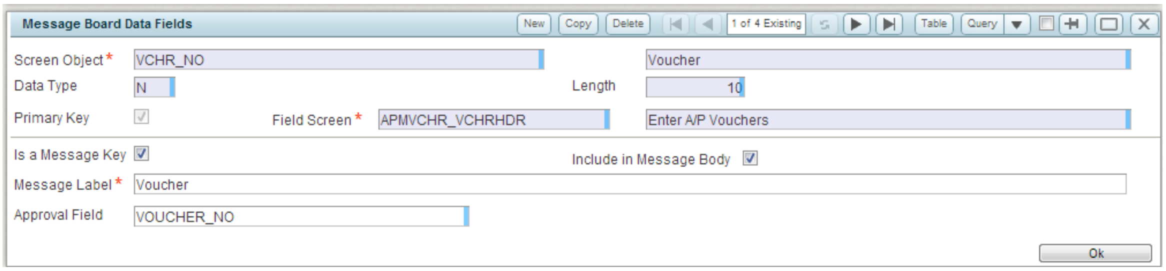
To assign an application screen to a message board, complete the following steps:

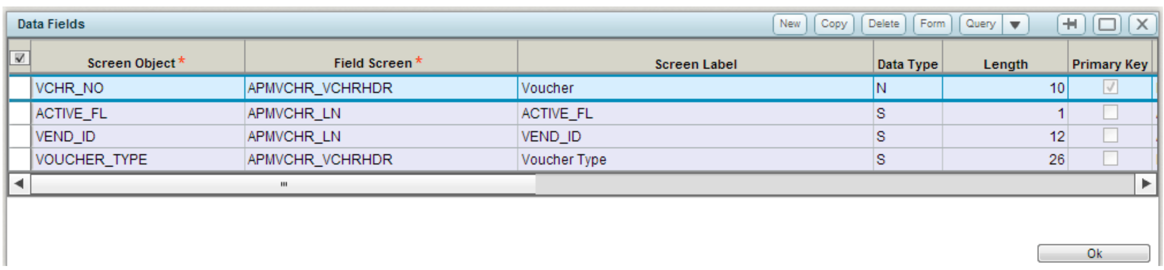
1. From Costpoint, click **Administration » System Administration » User Collaboration » Manage Message Boards**.
2. On the Message Boards screen, click the **Assigned Application Screens** subtask link.
3. On the Assigned Application Screens screen, enter the following:
   - **Application** — Enter the ID and name for the assigned application.
   - **Result Set** — Enter the ID and name for the assigned screen.
   - **This is an approval screen** — Select this check box to mark the result set as an approval screen.
   - **Approval Request Text** — Enter the text message for approval requests.

This is an approval screen and **Approval Request text** are optional fields. When you create a new message, you have the option to mark the message as an approval request. If so, the message will include the approval text and URL to the screen that is marked as an approval screen, regardless of the actual screen where message is created. To clarify, if the message board is assigned to multiple screens, you can initiate an approval request on any of the screens, and the message will also include the approval request message and URL to the screen that is marked as the approval screen.

The message board can be assigned to any level in the application result set tree.

Data Fields





There are three different reasons why you need to define data fields:

- **Message Keys**

  On the Message Boards screen, messages are filtered by the currently positioned Costpoint screen record data. The message board compares current data with the keys placed in the message subject and displays only matching messages. In order to link to Costpoint record messages, key fields must be defined. Actual values for these key fields are stored in the message subject when the message is created.

- **Includes**

  You can choose the fields that will be included in the message body. When the message is created in the message board, Costpoint will automatically append the values of the fields defined here to the message body. The value will be prefixed with the field label that can be additionally edited in this result set. Include fields are especially important when you view the message outside of Costpoint. Based on these fields, you can immediately identify the business entity that the message relates to.

- **Approval Keys**

  If you define an approval screen in Assigned Application Screens, at least one of the fields must be mapped to an approval key. Approval key fields must be defined in the Approval Key Fields screen. This mapping is necessary for generating the approval application URL. When you create a new message and mark it as an approval request, the system will include approval screen URL in the message body. In order to be able to generate the correct URL, the system must have the mapping from the current screen context to the context of the approval screen. For that reason, the approval key mappings must be defined both for the approval screen and for the screen that initiates the approval request.

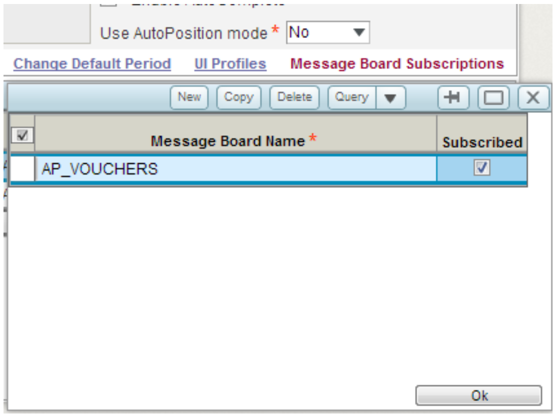
To set up the new data field, complete the following steps:

1. From Costpoint, click **Administration » System Administration » User Collaboration » Manage Message Boards**.
2. On the Message Boards screen, click the **Assigned Application Screens** subtask link.
3. On the Assigned Application Screens screen, click the **Data Fields** subtask link.
4. On the Message Board Data Fields screen, enter the following:
   - **Screen Object** — Select the screen object. The following fields populate automatically:
     - **Label**
     - **Data Type**
     - **Length**
     - **Primary Key**
     - **Field Screen** ID and name

     The screen object can be from the current or parent screen. Lookup for this field includes all available fields.
   - **Is a Message Key** — Select this check box if the field is to be used as a key. Primary keys are good candidates for keys, but that is not always the case.
   - **Include in Message Body** — Select this check box to include the field in the message body.
   - **Screen Object Message Label** — Enter the label for the included field.
   - **Approval Key Field** — Enter the field from the Approval Key Fields screen mapped to the current field.

Subscribe to Message Board

On the User Preferences screen (UPMUSRPR), you can choose to subscribe to a Message Board. Subscribers receive all messages to their email address.



In order to receive messages, you must be authorized to view the subscribed Message Board.

Using Message Boards

After configuring message boards, you can use them on preconfigured Costpoint application/screens.

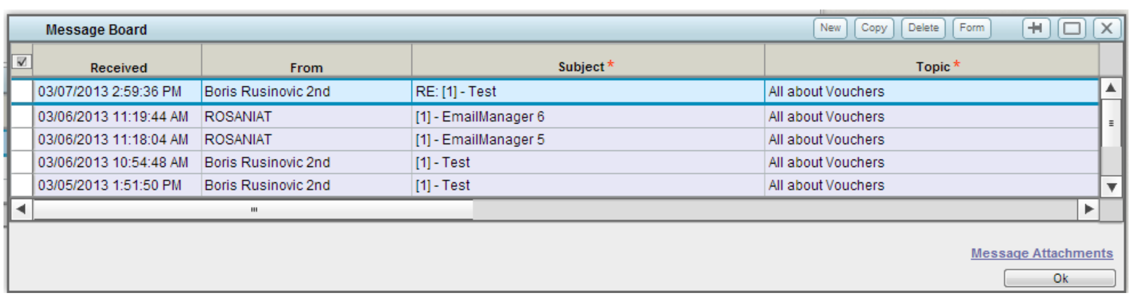
The **Email** button displays on the toolbar of any application screen that is configured to have Message Board.

View Message Board Messages

To view messages pertaining to the current Costpoint record, complete the following steps:

1. Select a record from the Costpoint application screen.
2. Click **Email**.

The **Message Board** table displays the list of messages about the record. If you select voucher 123, for example, and then click **Email**, you will see only messages about voucher 123. Messages are sorted by received date/time descending, so the latest message received will be shown first.

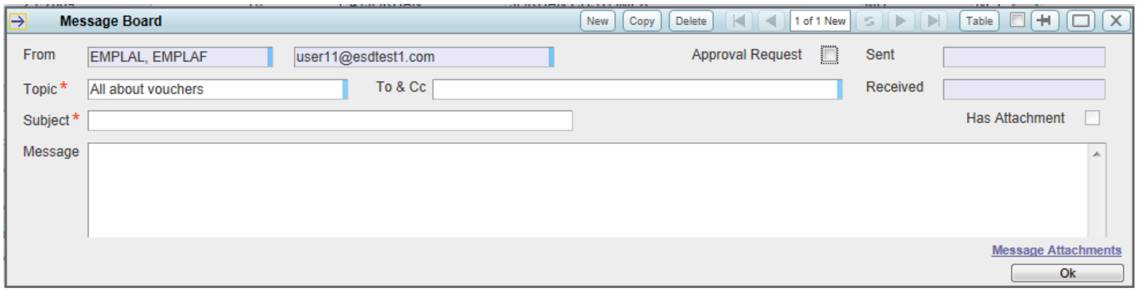


Create a New Message

To create a new message, complete the following steps:

1. Select a record from the Costpoint application screen.
2. Click **Email**.
3. Switch to **Form** view, and click **New**.

   The Message Board screen displays with the **From** fields disabled and populated with the current user ID and email address.



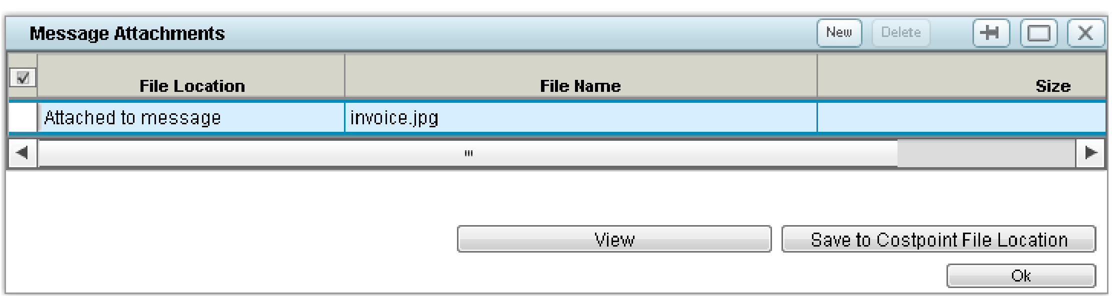
4. Complete the following:
   - **Approval Request** — Select this check box to define this message as an approval request. If selected, the message body will include approval instructions.
   - **Topic** — This field prepopulates only if there is one topic for the message board. If there are two or more topics, you must choose the topic using the lookup.
   - **Subject** — Enter anything for the subject. After saving/sending the message, Costpoint will prefix the subject text with the key information for the current record.
   - **Has Attachment** — This check box is disabled. It is used only for saved messages and is selected when message contains attachments.
   - **Message** — Enter the actual message to display for the message board. You can enter any text for the message. After saving/sending the message, Costpoint will append the following information:
     - If **Approval Request** selected, the approval message and approval screen URL
     - Fields defined as includes— Predefined field label and actual value from the record
     - Costpoint screen URL and record that the message is about

File attachments to the message must be created while the message is new (not saved/sent). After saving the message (to public folder) and sending it to recipients and subscribers, attachments cannot be changed.

Add Attachments to a New Message

To add file attachments to new message, complete the following steps:

1. On the Message Board screen, click the **Message Attachments** link to open attachments table.

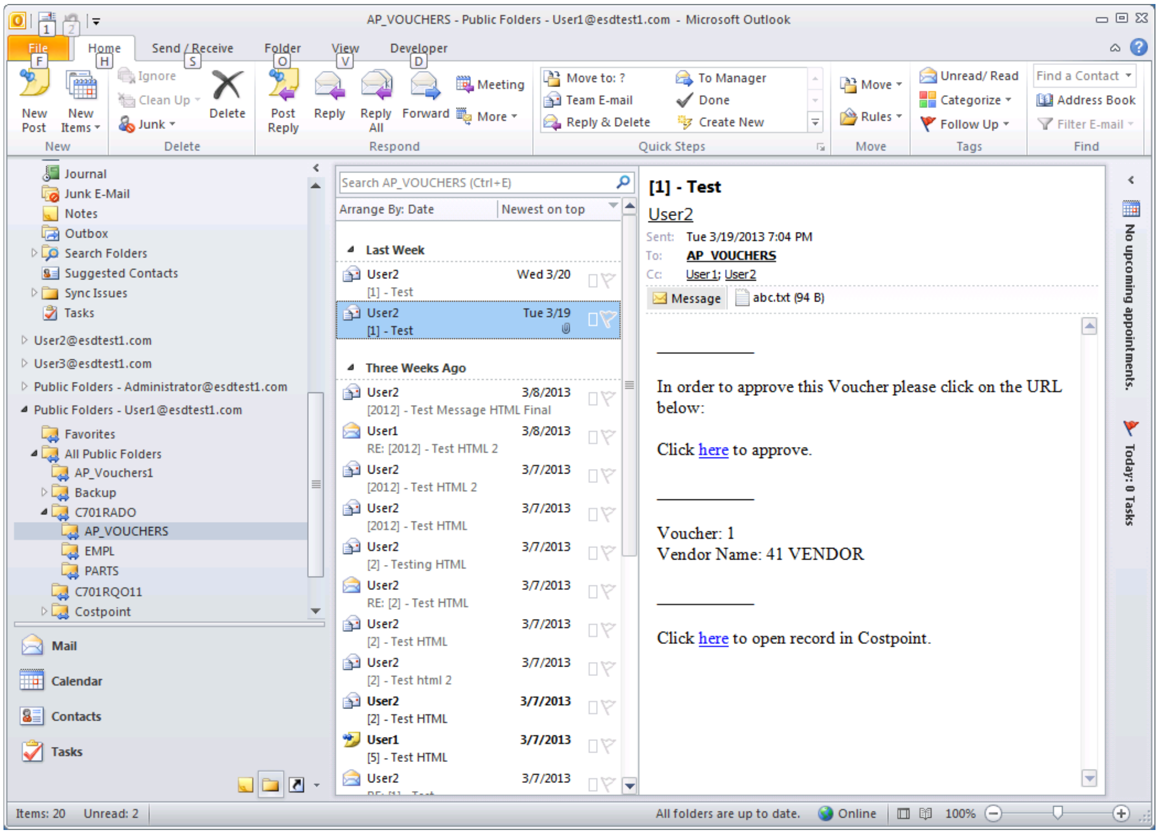


2. Enter the following information:
   - **File Location** — Enter the name of the Costpoint alternate file location where the file is stored. You can choose any location or leave this field empty for Costpoint database. To attach a file from your local driv,e follow these steps:
     a. From the Costpoint menu, click **PROCESS » File Upload**.
     b. Chose a file and upload file location. If the location is empty, the file uploads to the Costpoint database.

        After it uploads, file becomes available to attach to the message.
   - **File Name** — Select a file from the file location.
3. Repeat the process for multiple attachments.
4. After saving (posting) the message, click **View** to preview the attachments included with the message.
5. Click **Save to Costpoint Location** to save the file to the Costpoint Alternate File Location associated with the current message board topic.

Using Message Boards from Outlook

Message Boards are also visible and accessible in Outlook. Message board topics map to Outlook Public Folders that can be accessed directly from Outlook.

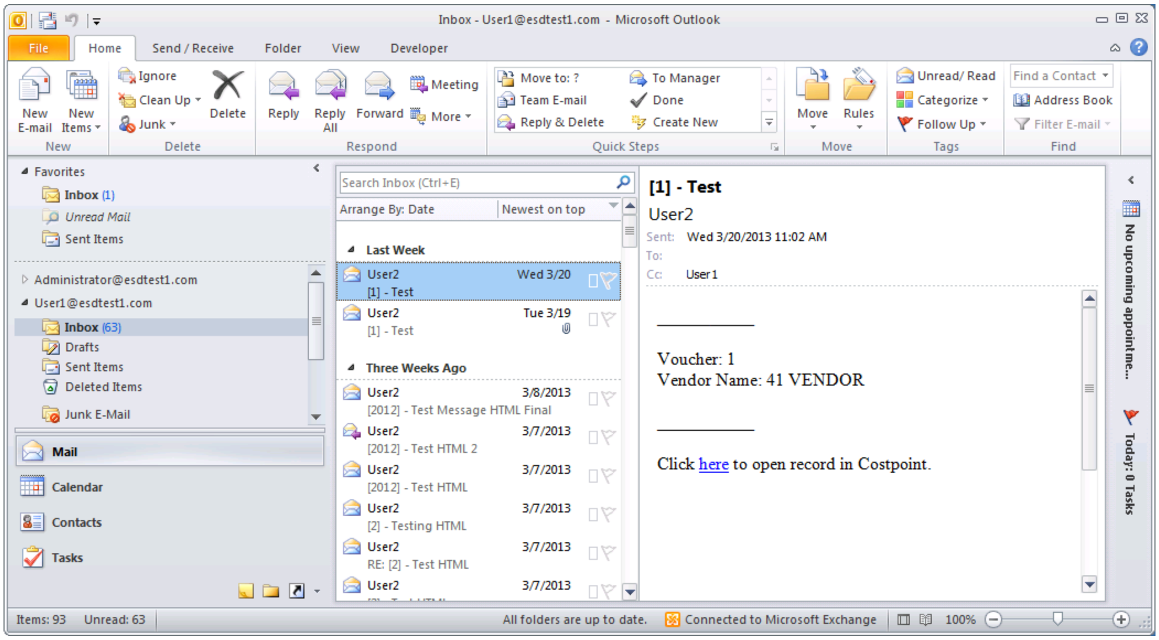


If you are authorized to access the message board topic, you can also use it in Outlook. You can post messages or replies to messages directly from Outlook, and all messages will be accessible in Costpoint. It is important not to change the message subject because it contains the key information for associating the message with the Costpoint record.

Outlook Public Folders are message repositories that can be accessed by multiple users at the same time, which makes them suitable for conversation storage about a particular subject (in this case Costpoint business entities).

Message board messages can be sent directly to a user’s email address by entering their name into the **To** or **Cc** field or by user subscription. In that case, the user receives copy of the message directly in her/his Inbox.

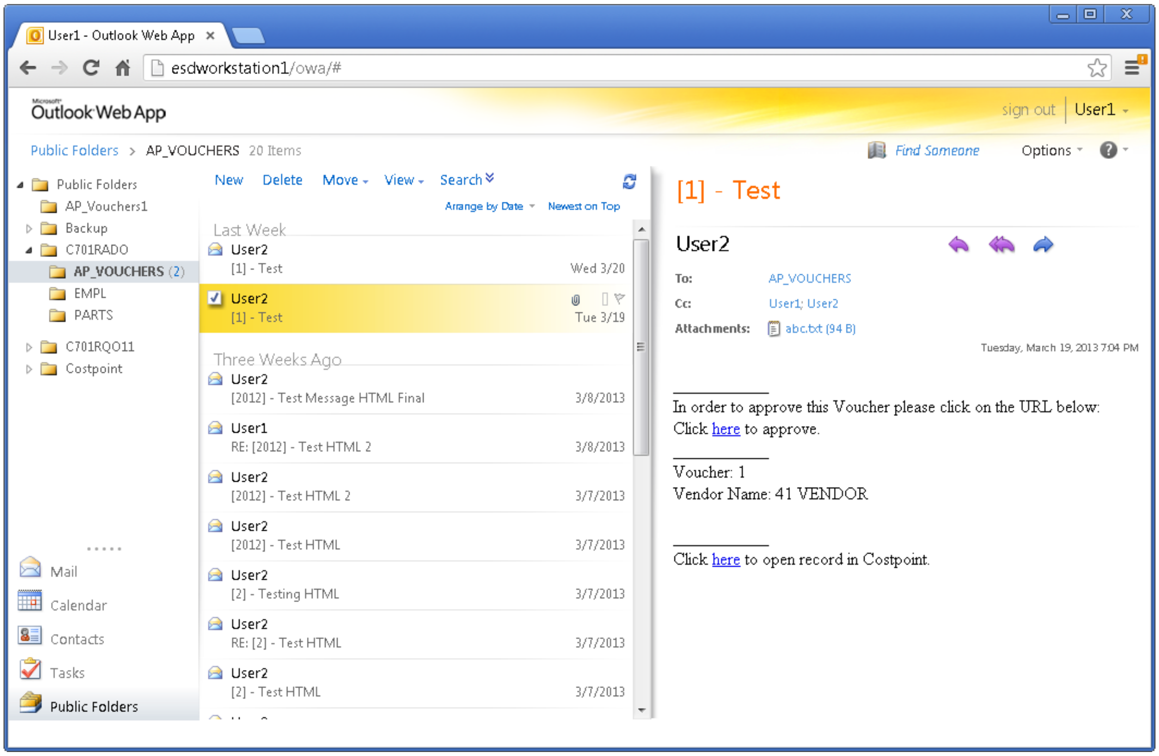
Replying to a message received from a Costpoint message board automatically populates the **To** field with the MB topic email address. After reply is sent and received by the Exchange Server, it is stored into the MB public folder. That makes the reply visible again and accessible in Outlook and Costpoint.



Discussing how to use Outlook is out of scope for this document. Deltek assumes that all users are familiar with it. Using Costpoint MB messages is no different from using any other email messages.

Using Message Boards from OWA

Outlook Web Application (OWA) is another email client application that can access MB Public Folders and be used to view, create, and post MB messages. Using OWA is very much the same as using Outlook.



The same security restrictions defined for MBs in Costpoint are also valid for Outlook and OWA.

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